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REC'D 03 MAY 2004

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INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference 5397-102WO	FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/US03/15120	International filing date (day/month/year) 14 May 2003 (14.05.2003)	Priority date (day/month/year) 17 May 2002 (17.05.2002)
International Patent Classification (IPC) or national classification and IPC IPC(7): A63H 3/31, 19/20, 3/28, 13/02, 3/36, 30/00, 3/14, 11/00 and US Cl.: 446/190, 340, 301, 297, 298, 337, 395, 175, 300, 329, 330, 353		
Applicant THIN AIR CREATIONS, LLC.		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.

2. This REPORT consists of a total of 3 sheets, including this cover sheet.

☒ This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of 3 sheets.

3. This report contains indications relating to the following items:

- I ☒ Basis of the report
- II ☐ Priority
- III ☐ Non-establishment of report with regard to novelty, inventive step and industrial applicability
- IV ☐ Lack of unity of invention
- V ☒ Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI ☐ Certain documents cited
- VII ☐ Certain defects in the international application
- VIII ☐ Certain observations on the international application

Date of submission of the demand 26 November 2003 (26.11.2003)	Date of completion of this report 14 April 2004 (14.04.2004)
Name and mailing address of the IPEA/US Mail Stop PCT, Attn: IPEA/US Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450 Facsimile No. (703) 305-3230	Authorized officer Jamilia Williams Telephone No. 703-305-3312 <i>Sheila H. Veney</i> Paralegal Specialist Tech. Center 3700

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/US03/15120

I. Basis of the report

1. With regard to the elements of the international application:*

☐ the international application as originally filed.☒ the description:pages 1-10 as originally filedpages NONE, filed with the demandpages NONE, filed with the letter of _____.☒ the claims:pages NONE, as originally filedpages NONE, as amended (together with any statement) under Article 19pages 11-13, filed with the demandpages NONE, filed with the letter of _____.☒ the drawings:pages 1-13, as originally filedpages NONE, filed with the demandpages NONE, filed with the letter of _____.☐ the sequence listing part of the description:pages NONE, as originally filedpages NONE, filed with the demandpages NONE, filed with the letter of _____.

2. With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language _____ which is:

☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).☐ the language of publication of the international application (under Rule 48.3(b)).☐ the language of the translation furnished for the purposes of international preliminary examination (under Rules 55.2 and/or 55.3).

3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

☐ contained in the international application in printed form.☐ filed together with the international application in computer readable form.☐ furnished subsequently to this Authority in written form.☐ furnished subsequently to this Authority in computer readable form.☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.4. ☐ The amendments have resulted in the cancellation of:☐ the description, pages NONE☐ the claims, Nos. NONE☐ the drawings, sheets/fig NONE5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).**

* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17).

** Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.
PCT/US03/15120**V. Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement****1. STATEMENT**

Novelty (N)	Claims <u>1-13</u>	YES
	Claims <u>NONE</u>	NO
Inventive Step (IS)	Claims <u>1-13</u>	YES
	Claims <u>NONE</u>	NO
Industrial Applicability (IA)	Claims <u>1-13</u>	YES
	Claims <u>NONE</u>	NO

2. CITATIONS AND EXPLANATIONS

Claims 1-13 meet the requirement of PCT articles 33(2) and 33(3) because the apparatus as claimed is not taught nor suggested in the prior art.

Claims 1-13 have industrial applicability under PCT Article 33(4) since the apparatus for mimicking human-like expressions can be made and/or used in toy and amusement industries.

----- NEW CITATIONS -----

We Claim:

Claim 1. An apparatus for mimicking human-like expressions comprising:
a first rotatable means having an attachment point thereon;
5 a second rotatable means also having an attachment point thereon and wherein
said second rotatable means is driveably connected to said first rotatable means so that said
first and second rotatable means rotate simultaneously,
an elastic means attachable to said attachment point on said first and second
rotatable means; and,
10 a drive means for driving at least one of said rotatable means,
wherein rotation of said first and second rotatable means causes said elastic
means to assume forms suggestive of human expressions.

Claim 2. The apparatus of claim 1 wherein said first and second rotatable means rotate
15 in opposite directions.

Claim 3. The apparatus of claim 2 further comprising:
an inflection-deflection pin located on said first rotatable means; and,
an inflection-deflection pin located on said second rotatable means,
20 wherein said inflection-deflection pins contact said elastic means when said first and second
rotatable means rotate in order to deform said elastic means and make said human
expressions more realistic.

Claim 4. The apparatus of claim 3 wherein said elastic means comprises a circular
25 elastic means having a hole in the center thereof and said attachment point pass through the
hole in center of said circular elastic means.

Claim 5. The apparatus of claim 4 wherein said first and second rotatable means
comprise gears having teeth that mesh with each other.

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Claim 6. The apparatus of claim 5 further comprising:
a base,

wherein said first and second rotatable means are mounted on said base.

Claim 7. The apparatus of claim 6 further comprising:

5 a third rotatable means having an attachment pin and an inflection-deflection
pin mounted thereon,

wherein said attachment point also passed through the hole in said center of said
circular elastic means.

Claim 8. The apparatus of claim 7 further comprising:

10 a fourth rotatable means having an attachment pin and an inflection-deflection
pin mounted thereon,

wherein said attachment point also passed through the hole in said center of said
circular elastic means.

15 Claim 9. The apparatus of claim 8 further including:

a pair of animated eye simulation means that operate in a coordinated fashion
with actuation of said circular elastic means.

Claim 10. The apparatus of claim 3 wherein said elastic means comprises:

20 an elastic material coupled to an attachment point on the upper surface of said
first rotatable means and to an attachment point on the upper surface of said second rotatable
means such that the elastic material can be deformed by axial rotation of at least one of said
rotatable means.

25 Claim 11. The apparatus of claim 3 further comprising:

a base;

a first immovable point means attached to said base for contacting said elastic
means,

30 wherein said first immovable point means does not move with respect to said
base.

Claim 12. The apparatus of claim 11 further comprising:

a second immovable point means also attached to said base for contacting said elastic means,

wherein said second immovable point means does not move with respect to said base.

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Claim 13. The apparatus of claim 3 wherein said attachment point and said inflection-deflection pin on said first rotatable means is spaced apart from said first rotatable means by a first support arm and said attachment pin and said inflection-deflection pin on said second rotatable means is also spaced apart from said second rotatable means by a second support

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arm.

Claim 14. The apparatus of claim 3 wherein said elastic material include a ridge therein for engaging said attachment points and said inflection-deflection pins.

15 Claim 15. The apparatus claim 3 wherein said elastic material includes lip sections for engaging said attachment points and said inflection-deflection pins and an elastic mouth section located between said lip sections.